REMARKS

Upon entry of the above amendment, claims 1-6 and 8-9 will be pending in the present application. Claims 1 and 4-6 have been amended. No new matter has been added. Claim 7 has been cancelled without prejudice or disclaimer.

Claims 1 and 4-6 have been amended, for the sole reason of advancing prosecution. Applicants, by amending or cancelling any claims herein, make no admission as to the validity of any rejection made by the Examiner against any of these claims. Applicants reserve the right to reassert any of the claims canceled herein or the original claim scope of any claim amended herein, in a continuing application.

Independent claim 1 has been amended to recite "a patch-containing packaging pouch comprising: a packaging pouch; and a patch, housed within the packaging pouch, in which a pressure-sensitive adhesive layer is formed on one side of a support, wherein the pressure-sensitive adhesive layer is formed of a pressure-sensitive adhesive composition comprising a pressure-sensitive adhesive comprising at least one compound selected from the group consisting of a styrene-isoprene-styrene block copolymer, polyisobutylene and an acrylic polymer, and bisoprolol or a pharmaceutically acceptable salt thereof present in an amount of 1 to 50% by mass in the pressure-sensitive adhesive composition, wherein relative humidity inside the packaging pouch at 25°C is maintained at 25% or less." Support for amended claim 1 can be found throughout the specification and claims as originally filed. For example, please *see* paragraphs [0027]-[0030], on pages 8 and 9, of the present specification. No new matter has been added.

Claims 2-6 and 8-9 all depend, either directly or indirectly, from claim 1.

Claims 4-6 have been amended to place them in proper Markush form. No new matter has been added.

Applicants respectfully submit that the amendment of each of claims 1 and 4-6 does not add any new matter within the meaning of 35 USC §132. Accordingly, entry of the amendment is respectfully requested.

In view of the remarks set forth herein, further and favorable consideration is respectfully requested.

1. ***At pages 2-5 of the Official Action, claims 1-6 and 8 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Wilking (U.S. Patent No. 5,698,217) in view of Klokkers et al. (U.S. Patent Application Publication No. 2004/0086552).***

The Examiner asserts that it would have been obvious to combine the transdermal drug delivery system of Wilking with the transdermal therapeutic system containing bisoprolol as described in Klokkers et al. to arrive at the subject matter of the presently pending claims.

Applicants respectfully traverse this rejection of claims 1-6 and 8. The cited references do not establish a *prima facie* case of obviousness against the presently pending claims.

To establish a *prima facie* case of obviousness, the PTO must satisfy three requirements. First, as the U.S. Supreme Court recently held in *KSR International Co. v. Teleflex Inc. et al.*, Slip Opinion No. 04-1350, 550 U.S. __ (April 30, 2007), "a court must ask whether the improvement is more than the predictable use of prior art

elements according to their established functions. ...it [may] be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. ...it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does... because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." (*KSR*, supra, slip opinion at 13-15). Second, the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *Amgen Inc. v. Chugai Pharm. Co.*, 18 USPQ 1016, 1023 (C.C.P.A 1970). Lastly, the prior art references must teach or suggest all the limitations of the claims. *In re Wilson*, 165 USPQ 494, 496 (C.C.P.A. 1970).

Further, the Supreme Court in *KSR* reiterated the framework for determining obviousness that was stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). The four factual inquiries that were recited in *Graham* are as follows: (1) Determining the scope and contents of the prior art; (2) Ascertaining the differences between the prior art and the claims in issue; (3) Resolving the level of ordinary skill in the pertinent art; and (4) Evaluating evidence of secondary considerations, such as

unexpected results. *Id.* As stated in **MPEP 2141**, secondary considerations such as unexpected results must be considered in every case in which they are present.

As described in **MPEP § 716.02(a)**, "A greater than expected result is an evidentiary factor pertinent to the legal conclusion of obviousness ... of the claims at issue." *In re Corkill*, 711 F.2d 1496, 226 USPQ 1005 (Fed. Cir. 1985). In *Corkhill*, the claimed combination showed an additive result when a diminished result would have been expected. This result was persuasive of nonobviousness even though the result was equal to that of one component alone. Evidence of a greater than expected result may also be shown by demonstrating an effect which is greater than the sum of each of the effects taken separately (i.e., demonstrating "synergism"). *Merck & Co. Inc. v. Biocraft Laboratories Inc.*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989).

Evidence of unobvious or unexpected advantageous properties, such as superiority in a property the claimed compound shares with the prior art, can rebut prima facie obviousness. "Evidence that a compound is unexpectedly superior in one of a spectrum of common properties . . . can be enough to rebut a prima facie case of obviousness." No set number of examples of superiority is required. *In re Chupp*, 816 F.2d 643, 646, 2 USPQ2d 1437, 1439 (Fed. Cir. 1987) (Evidence showing that the claimed herbicidal compound was more effective than the closest prior art compound in controlling quackgrass and yellow nutsedge weeds in corn and soybean crops was sufficient to overcome the rejection under 35 U.S.C. 103, even though the specification indicated the claimed compound was an average performer on crops other than corn

and soybean.). *See* also *Ex parte A*, 17 USPQ2d 1716 (Bd. Pat. App. & Inter. 1990) (unexpected superior therapeutic activity of claimed compound against anaerobic bacteria was sufficient to rebut prima facie obviousness even though there was no evidence that the compound was effective against all bacteria). *See* **MPEP § 716.02(a) II**.

Presence of a property not possessed by the prior art is evidence of nonobviousness. *In re Papesch*, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) (rejection of claims to compound structurally similar to the prior art compound was reversed because claimed compound unexpectedly possessed anti-inflammatory properties not possessed by the prior art compound); *Ex parte Thumm*, 132 USPQ 66 (Bd. App. 1961) (Appellant showed that the claimed range of ethylene diamine was effective for the purpose of producing "'regenerated cellulose consisting substantially entirely of skin'" whereas the prior art warned "this compound has 'practically no effect.'"). The submission of evidence that a new product possesses unexpected properties does not necessarily require a conclusion that the claimed invention is nonobvious. *In re Payne*, 606 F.2d 303, 203 USPQ 245 (CCPA 1979). *See* the discussion of latent properties and additional advantages in **MPEP § 2145**. *See* **MPEP § 716.02(a) II**.

Applicants respectfully submit that a *prima facie* case of obviousness has not been established because the cited references, either taken alone or in combination, do not recite all the elements of the presently pending claims, as required by *In re Wilson*.

As amended, claim 1 is directed to a patch-containing packaging pouch comprising: a packaging pouch; and a patch, housed within the packaging pouch, in

which a pressure-sensitive adhesive layer is formed on one side of a support, wherein the pressure-sensitive adhesive layer is formed of a pressure-sensitive adhesive composition comprising a pressure-sensitive adhesive comprising at least one compound selected from the group consisting of a styrene-isoprene-styrene block copolymer, polyisobutylene and an acrylic polymer, and bisoprolol or a pharmaceutically acceptable salt thereof in an amount of 1 to 50% by mass in the pressure-sensitive adhesive composition, wherein relative humidity inside the packaging pouch at 25°C is maintained at 25% or less. Claims 2-6 and 8 all depend, either directly or indirectly, from claim 1.

In contrast to the presently claimed subject matter, Wilking describes a transdermal drug delivery device including a carrier containing a dissolved drug. According to Wilking, the device also includes a desiccant package that is inert to the carrier, permeable to water vapor, and defines a desiccant compartment containing a desiccant. Further, according to Wilking, the device also includes a water vapor impermeable product package that contains the carrier and the desiccant package. *See* Wilking at the Abstract.

However, nowhere does Wilking describe the use of bisoprolol in the pressure-sensitive adhesive composition in an amount of 1 to 50%, as presently claimed. Further, Wilking does not describe that the pressure-sensitive adhesive comprises at least one compound selected from the group consisting of a styrene-isoprene-styrene block copolymer, polyisobutylene and an acrylic polymer, as recited in currently amended claim 1. In addition, Wilking does not describe maintaining a relative humidity

inside the packaging pouch of 25% or less at 25°C. Therefore, Wilking does not teach or suggest every element of present claim 1.

Klokkers et al. do not remedy the deficiencies of Wilking. Klokkers et al. describe a transdermal therapeutic system comprising a surface layer which is impervious with respect to an active ingredient; a self-adherent matrix layer or a plurality of matrix layers, wherein the exposed matrix layer is self-adherent when the system is applied. According to Klokkers et al., the transdermal therapeutic system also comprises a pull-off protective coating, whereby the matrix layer(s) contain one or more active ingredients and/or one or more biologically active substances and highly dispersed silicon dioxide. *See* Klokkers et al. at the Abstract.

However, like Wilking, Klokkers et al. do not teach or suggest every element of the present subject matter. Klokkers et al. do not describe the use of bisoprolol in the pressure-sensitive adhesive composition in an amount of 1 to 50%, as presently claimed. Further, Klokkers et al. does not describe maintaining a relative humidity inside the packaging pouch of 25% or less at 25°C. Accordingly, none of the cited references, either taken alone or in combination, recite all of the elements of the presently pending claims as required by *In re Wilson.*

Applicants respectfully note that the Examiner simply asserts that the use of bisoprolol in the claimed amount, and the claimed relative humidity, are obvious over the applied references. However, the Examiner provides no clear articulation, reasoning or factual basis, to support such assertions of obviousness. Again, neither of the references teaches or suggests the use of bisoprolol in the pressure-sensitive

adhesive composition in an amount of 1 to 50%, as presently claimed. Further, neither of the references teaches or suggests maintaining a relative humidity inside the packaging pouch of 25% or less at 25°C. If this rejection is to be maintained, Applicants respectfully request that the Examiner expressly address this issue.

Further, Applicants respectfully draw the Examiner's attention to paragraphs [0007]-[0014] of the present specification, where it is indicated that bisoprolol is susceptible to increased hydrolysis when introduced into the pressure-sensitive layer of a patch formulation. However, if the content of bisoprolol is between 1-50%, the relative humidity within the packaging pouch is 25% or less, and the pressure-sensitive adhesive is selected from the group consisting of a styrene-isoprene-styrene block copolymer, polyisobutylene and an acrylic polymer, all of which are elements recited in the presently pending claims, the hydrolysis of bisoprolol is ***remarkably inhibited***. Again, none of the references, either taken alone or in combination, recite all of the aforementioned elements that are recited in the presently pending claims.

In addition, Applicants respectfully draw the Examiner's attention to the data shown in Tables 3 and 4, and in paragraphs [0092] and [0093], of the instant specification. The data in Tables 3 and 4 shows the residual percentages of bisoprolol in the presently claimed patch-containing packaging pouches, as compared to the amount contained in patch-containing packaging pouches with no dessicant, after storage for 3 months and 12 months, respectively. As indicated in Table 3, the presently claimed patch-containing packaging pouches ***showed higher residual percentages of bisoprolol*** after storage for 3 months in a constant-temperature,

constant-humidity chamber at a temperature of 40° C and relative humidity of 75% as compared to patch-containing packaging pouches having no dessicant.

In view of the foregoing, Applicants respectfully submit that none of the applied references, taken alone or together, render the presently claimed subject matter obvious within the meaning of 35 U.S.C. § 103(a). Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

2. ***At pages 5-6 of the Official Action, claim 7 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Wilking in view of Klokkers et al., and in further view of Kanios et al. (U.S. Patent No. 6,905,016).***

The Examiner asserts that it would have been obvious to modify the pressure-sensitive adhesive as described in Wilking and Klokkers et al. to include an acrylic polymer pressure-sensitive adhesive as described in Kanios et al.

Applicants respectfully note that claim 7 has been canceled without prejudice or disclaimer, thereby rendering this rejection of claim 7 moot. Therefore, Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

3. ***At pages 6-7 of the Official Action, claim 9 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Wilking and Klokkers et al., and in further view of Takayuki (Japanese Patent Application No. 61-073547).***

The Examiner asserts that it would have been obvious to modify the innermost layer of the packaging pouch of Wilking and Klokkers et al. to include a polyacrylonitrile-based resin as its innermost layer as described in Takayuki et al. As discussed above, Wilking describes a transdermal drug delivery device involving a carrier containing a dissolved drug. *See* Wilking at the Abstract. Klokkers et al. describe a transdermal

therapeutic system comprising a surface layer which is impervious with respect to an active ingredient; a self-adherent matrix layer or a plurality of matrix layers, wherein the exposed matrix layer is self-adherent when the system is applied. *See* Klokkers et al. at the Abstract.

Takayuki describe "an anti-inflammatory, analgesic drug packaging body formed by affixing a peel-off protective film configured from a polyacrylonitrile-based resin on the drug-coated surface of a film-like or sheet-like anti-inflammatory, analgesic drug, and packaging and hermetically-sealing the same in a bag having an innermost layer of polyacrylonitrile-based resin which forms the innermost layer of the bag." *See* Takayuki et al. at page 2.

Applicants respectfully traverse this rejection of claim 9.

A brief outline of relevant authority is discussed above.

Applicants respectfully submit that a *prima facie* case of obviousness has not been established because the cited references, either taken alone or in combination, do not recite all the elements of the presently pending claims, as required by *In re Wilson*. Please see the arguments set forth above with regard to Wilking and Klokkers et al.

Applicants submit that Takayuki does not overcome the deficiencies of Wilking and Klokkers et al., either taken alone or in combination, because Takayuki does not teach or suggest bisoprolol in an amount of 1-50%, and relative humidity inside the packaging pouch at 25°C is maintained at 25% or less, as recited in the presently pending claims.

As discussed above, amended claim 1 recites a patch-containing packaging

pouch comprising: a packaging pouch; and a patch, housed within the packaging pouch, in which a pressure-sensitive adhesive layer is formed on one side of a support, wherein the pressure-sensitive adhesive layer is formed of a pressure-sensitive adhesive composition comprising a pressure-sensitive adhesive comprising at least one compound selected from the group consisting of a styrene-isoprene-styrene block copolymer, polyisobutylene and an acrylic polymer, and bisoprolol or a pharmaceutically acceptable salt thereof present in an amount of 1 to 50% by mass in the pressure-sensitive adhesive composition, wherein relative humidity inside the packaging pouch at 25°C is maintained at 25% or less.

Dependent claim 9 incorporates the features recited in independent claim 1, and further recites "the packaging pouch has layer formed from polyacrylonitrile on the innermost side of said packaging pouch."

As discussed above, none of the cited references recite all of the elements of the presently pending claims, as required by *In re Wilson*. In particular, none of the cited references, either taken alone or in combination, describe bisoprolol in an amount of 1-50%, and relative humidity inside the packaging pouch at 25°C is maintained at 25% or less, as recited in the presently pending claims.

In view of the foregoing, Applicants respectfully submit that none of the applied references, taken alone or together, render the presently claimed subject matter obvious within the meaning of 35 U.S.C. § 103(a). Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

CONCLUSION

Based upon the above remarks and amendment, the presently claimed subject matter is believed to be novel and patentably distinguishable over the prior art of record. The Examiner is therefore respectfully requested to reconsider and withdraw all rejections and allow all pending claims in this application. Favorable action with an early allowance of the claims pending in this application is earnestly solicited. The Examiner is welcomed to telephone the undersigned attorney if he has any questions or comments.

In the event this paper is not timely filed, Applicants petition for an appropriate extension of time. Please charge any fee deficiency or credit any overpayment to Deposit Account No. 14-0112.

Respectfully submitted,
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